ADEQ Arizona Department of Environmental Quality

Doug Ducey, Governor • Misael Cabrera, Director

FACT SHEET

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Bahama Avenue and Bimini Lane

Water Quality Assurance Revolving Fund (WQARF) Site — September 2021

Installation of Groundwater Monitoring Well at the Site.

What is happening in my community?
The Arizona Department of Environmental Quality (ADEQ) is investigating a contaminated site near you. The Bahama Avenue and Bimini Lane Water Quality Assurance Revolving Fund (WQARF) Site was listed on Sept. 16, 2021, with an Eligibility & Evaluation score of 46 out of 120. Our investigation will help us clean up the site and protect public health and the environment.

What is a WQARF site?
WQARF sites contain contaminated soil, groundwater or surface water. ADEQ investigates WQARF site contamination sources, potentially responsible parties, and cleanup methods, all while informing affected communities. To learn more about the WQARF program, visit azdeq.gov/WQARF.

Where is the site?
The site investigation area is in Lake Havasu City, generally bound by Industrial Boulevard (north), Palo Verde Boulevard (south), the Orion Lane alignment (east) and London Bridge Road (west). *See map (Fig.1) on next page*

What has ADEQ found at the site?
From 2001 to 2004, the United States Environmental Protection Agency (EPA) discovered soil, soil gas and groundwater contaminated with volatile organic compounds (VOCs) near the northwest corner of Lake Havasu Avenue and Bahama Avenue. Heavy metal contamination was found in soil and groundwater.

In 2019 and 2020, ADEQ conducted a Preliminary Investigation near that location and confirmed the presence of three contaminants in the groundwater above their respective Arizona Aquifer Water Quality Standards:

- Tetrachloroethene (PCE)
- Trichloroethene (TCE)
- Thallium

One contaminant was confirmed present in the soil above Soil Remediation Levels:

- Arsenic

These contaminants are called Contaminants of Concern (COCs).

The COCs are man-made chemicals, called chlorinated solvents. PCE and TCE are used commercially and in industrial manufacturing. They are often used as cleaning solvents or in degreasing. Arsenic and thallium are heavy metals that have multiple uses in industrial operations. Arsenic may be found naturally occurring in the environment in Arizona.

When improperly stored or thrown away, these chemicals can evaporate into the air or travel underground into soil and groundwater.

Sampling results:
The highest groundwater concentration of TCE detected during sampling in 2003 was 1,400 micrograms per liter (µg/L). The highest concentration detected during sampling in 2020 was 2,650 µg/L. As there has been no decrease in concentrations in the area over a period of 17 years, there is likely an ongoing source of TCE to groundwater in the vadose zone in the area.

Is my drinking water safe?
Yes! The City collects and treats water from the aquifer below and adjacent to the lake for treatment. Lake Havasu drinking water meets state and federal drinking water standards. ADEQ is acting to protect the site's groundwater for use as drinking water.

To learn more about your city's drinking water, visit:

- lhcaz.gov/public-works

FACT SHEET

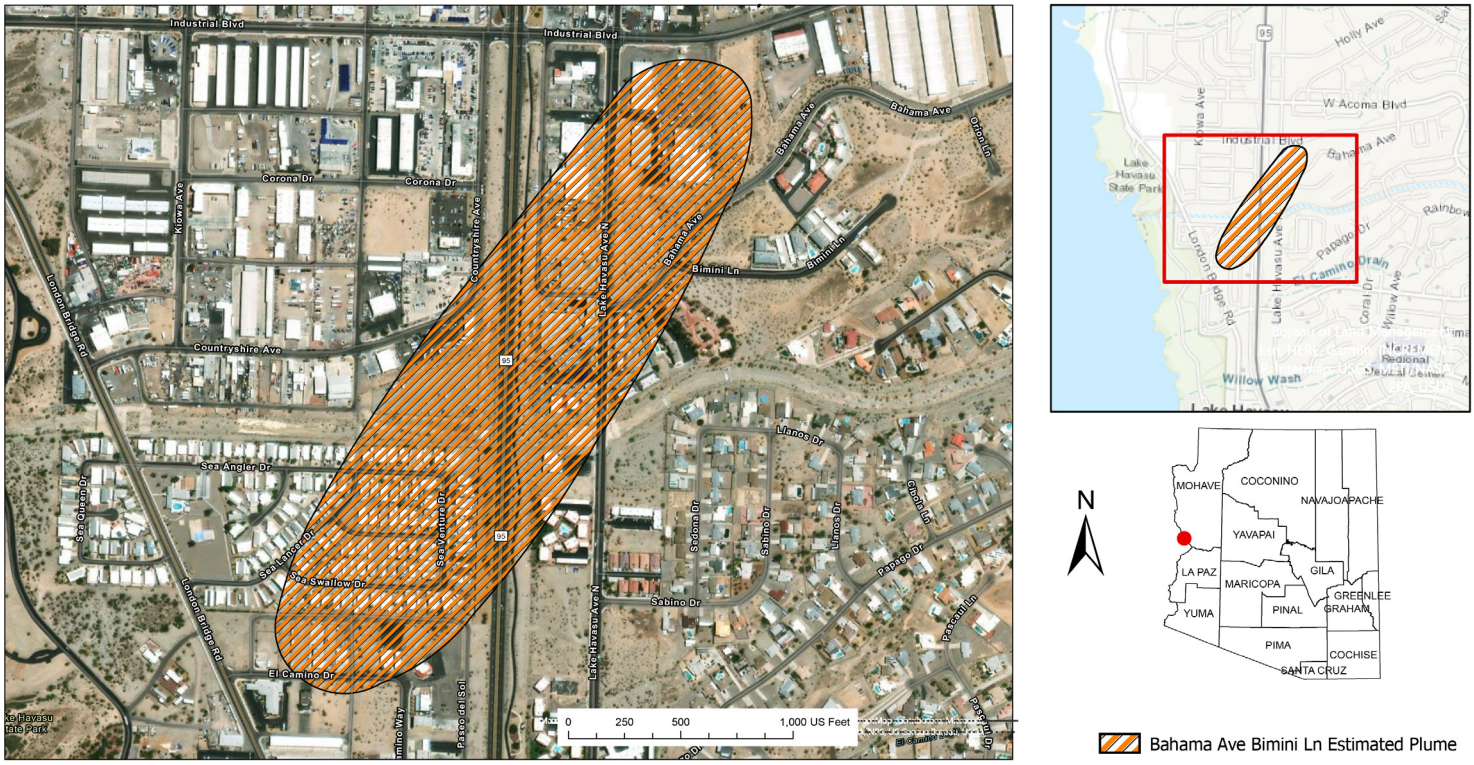

Figure 1 | The map shows where groundwater contamination is above Arizona Aquifer Water Quality Standards. This area may change as investigations continue.

What are the potential health risks associated with exposure to site contaminants?

You must be exposed to site contaminants before they can affect your health. Exposure means you swallow, touch, or breathe in something contaminated, like water, soil or air.

Exposure does not necessarily mean you will develop health problems. The risk depends on how much and how often you are exposed to a contaminant, along with your health and family history.

Health studies link long-term PCE and TCE exposure to a higher risk of developing certain cancers. Other health effects are possible, such as memory loss or lack of coordination. Arsenic exposure can cause stomach upset/ache, nausea and skin problems. Arsenic exposure over many years also raises the risk of certain cancers.

At high levels, thallium exposure may lead to gastrointestinal and dermatological issues, hair loss and nerve damage. Few studies exist on exposure to low levels of thallium over many years.

More Information:

- Lake Havasu City does not pump water from any wells within the site boundaries. The City collects and treats water from the aquifer below and adjacent to the lake for treatment. Lake Havasu City has not detected TCE, PCE or thallium in any drinking water sources. Arsenic has been detected below federal and state drinking water standards.
- Private water wells should be tested for the presence of these contaminants.
- These site contaminants evaporate quickly from irrigation water.
- You may be exposed to arsenic in the soil when walking, playing or working on the site, but much

30 Day COMMENT PERIOD | Sept. 24 to Oct. 25, 2021

ADEQ announces a 30-day comment period beginning Sept. 24, 2021, for the Bahama Avenue and Bimini Lane WQARF site scope of work, outline of a community involvement plan and fact sheet [A.R.S. §49-287.03(C); §49-289.02; A.A.C. R18-16-403]. To view these documents, visit azdeq.gov/bahama-bimini-site-repository. ADEQ may hold a public meeting if significant interest exists. Any person by agreement with the department may develop and implement a work plan for the remedial investigation and the feasibility study. Comments on the these items should be submitted by Oct. 25, 2021, to Cox.Hazel@azdeq.gov, or Hazel Cox, Project Manager, ADEQ, 1110 W Washington Street, Phoenix, AZ 85007

of this arsenic may not be absorbed by your body. To reduce exposure, avoid undeveloped commercial dirt lots.
- As part of our investigation, we may investigate the potential for soil vapor intrusion.
- The potential for COC impacts at Lake Havasu State Park are unknown.

For more health information, visit:
Arizona Department of Health Services: azhealth.gov/environmentalhealth | 602-364-3118

Agency for Toxic Substances and Disease Registry: atsdr.cdc.gov | 800-232-4636

What happens next?
ADEQ will start the Remedial Investigation and form a Community Advisory Board (CAB).

During the investigation, we:
- Define the contamination, where it came from, and how far it has spread in the environment.
- Assess risks to public health and the environment.
- Identify the site's current and future land and water use.
- Collect other needed information to develop cleanup strategies.

The CAB will be a group of community members who meet with ADEQ to:

- Voice community concerns about the site.
- Provide feedback on site activities.
- Share site updates with the community.

How can I learn more?
- Visit our website: azdeq.gov/bahama-bimini
- Join our site mailing list by:
  - Going online to sign up
  - Mailing the attached form
  - Email the form to boschert.barbara@azdeq.gov

How can I get involved?
Apply to be a CAB member by mailing the attached form or visit azdeq.gov/bahama-bimini.

GLOSSARY

Aquifer: An underground rock formation that can store groundwater and supply it to wells and springs.

Aquifer Water Quality Standards: Maximum contaminant levels set to protect groundwater in Arizona aquifers for present and future use, including drinking water.

Chlorinated solvent: A chemical product used to dissolve other substances.

Contaminant: A harmful or hazardous substance released into the environment that are not naturally occurring or above background levels.

Contaminant of Concern: A WQARF site contaminant found at a level that may require cleanup action.

Eligibility & Evaluation Score: ADEQ's method to prioritize sites for investigation and cleanup. The score is based on multiple criteria and does not always mean there is a current threat to health.

Groundwater: Water beneath the earth's surface in the spaces between soil particles and rock surfaces. In aquifers, groundwater occurs in sufficient quantities to be used for drinking water, irrigation, and other purposes.

Heavy Metals: Refers to a group of metals including arsenic, chromium, copper, lead, mercury, silver and zinc. Heavy metals often are present at industrial sites where operations have included battery recycling and metal plating.

Preliminary Investigation: Refers to the process of collecting and reviewing available information about a known or suspected hazardous waste site or release.

Remedial Investigation: An in-depth study designed to gather the data necessary to determine the nature and extent of contamination at a site and the risk posed by the contamination.

Soil Remediation Levels: A pre-determined risk-based standard protective for residential or non-residential use based upon the total contaminant concentration in soil.

Vadose Zone: The area between the ground surface and the groundwater.

Vapor Intrusion: The migration of volatile chemicals from the subsurface into overlying buildings. Volatile chemicals in buried wastes and/or contaminated groundwater can emit vapors that may migrate through subsurface solid and into air spaces of overlying buildings.

Volatile Organic Compounds (VOCs): A large group of carbon-containing compounds that are easily dissolved into water, soil, or the atmosphere and evaporate readily at room temperature. These contaminants are typically generated from metal degreasing, printed circuit board cleaning, gasoline and wood preserving processes.

Water Quality Assurance Revolving Fund (WQARF): Also known as the State Superfund. WQARF is the program and funding used to address hazardous substance releases within the state that are not covered by other specific programs.

Do you own a well? Contact us!

If you own or operate a private well near the site, please contact ADEQ at 520-770-3125.

Conact ADEQ / Comuniquense con ADEQ

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For translations or other communications aids, please email the Title VI Coordinator, Leonard Drago, at Drago.Leonard@azdeq.gov or call 602-771-2288.

Para traducciones u otras ayudas de comunicación, envíe un correo electrónico al Coordinador del Título VI, Leonard Drago, a Drago.Leonard@azdeq.gov o llame al 602-771-2288.

Learn more about the Bahama Avenue and Bimini Lane WQARF site. Visit azdeq.gov/bahama-bimini